



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/565,553

01/23/2006

Mitsuhiro Kaneta

Q92827

2076

65565 7590 06/24/2010
SUGHRUE-265550
2100 PENNSYLVANIA AVE. NW
WASHINGTON, DC 20037-3213

EXAMINER

BERNSHTEYN, MICHAEL

ART UNIT

PAPER NUMBER

1796

NOTIFICATION DATE

DELIVERY MODE

06/24/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

SUGHRUE265550@SUGHRUE.COM
USPTO@SUGHRUE.COM
PPROCESSING@SUGHRUE.COM

Office Action Summary	Application No. 10/565,553	Applicant(s) KANETA, MITSUHIRO	
	Examiner MICHAEL M. BERNSHTEYN	Art Unit 1796	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 March 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 4-6 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 5 and 6 is/are allowed.
- 6) ☒ Claim(s) 4 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is a response to the remarks filed on March 22, 2010. Claims 1 and 2 have been cancelled; claims 5 and 6 have been added; no claims have been amended.
2. Claims 4-6 are active.

Claim Rejections - 35 USC § 103

3. The text of this section of Title 35 U.S.C. not included in this action can be found in a prior Office Action.
4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Catena (U. S. Patent 5,256,450) in view of Yang (U. S. Patent 5,039,767), for rationale recited in paragraph 7 of Office Action dated December 21, 2009, and comments below.

Response to Arguments

5. Applicant's arguments filed on March 22, 2010 have been fully considered but they are not persuasive.
6. It appears that the focal Applicants argument resides in the contention that there is no teaching, suggestion, motivation, or other apparent reason to substitute the metals of Yang for the sodium in the tetrasodium ethylenediamine tetraacetate complex of Catena (page 4, 2nd paragraph). Applicants contend that based on the differences in reactivity between Na and Mn, Fe, Co, Cu, or V, a person of ordinary skill in the art

Art Unit: 1796

would not have substituted the metals of Yang into the ethylenediaminetetraacetate of Catena with a reasonable expectation of success (pages 4-5, the bridging paragraph).

7. In response to applicant's argument that there is no teaching, suggestion, or motivation to combine the references, the examiner recognizes that obviousness may be established by combining or modifying the teachings of the prior art to produce the claimed invention where there is some teaching, suggestion, or motivation to do so found either in the references themselves or in the knowledge generally available to one of ordinary skill in the art. See *In re Fine*, 837 F.2d 1071, 5 USPQ2d 1596 (Fed. Cir. 1988), *In re Jones*, 958 F.2d 347, 21 USPQ2d 1941 (Fed. Cir. 1992), and *KSR International Co. v. Teleflex, Inc.*, 550 U.S. 398, 82 USPQ2d 1385 (2007). In this case, it is noted that both references belong to the same field of endeavor concerning aerobic curable compositions containing saccharin (ortho-benzoic acid sulfimide) and tetrasodium ethylenediaminetetraacetate.

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to incorporate transition metals salts such as manganese, iron, cobalt and vanadium salts, as taught by Yang in Catena's anaerobic curable composition comprising complex of a metal and ethylenediaminetetraacetic acid for obtaining the claimed complex of a metal other than alkali metals and ethylenediaminetetraacetic acid because manganese, iron, cobalt and vanadium salts together with o-benzoic sulfimide have accelerated cure rates; therefore they play an important part in the cure mechanism of peroxide initiated acrylic formulations,

Art Unit: 1796

especially so in anaerobic cure mechanisms (US'767, abstract; col. 1, lines 59-68; Fig. 1-5), and thus to arrive at the subject matter of instant claim 4.

It is further noted that "The motivation in the prior art to combine references does not have to be identical to that of the applicant to establish obviousness, i.e. it is not required for a finding of obviousness that motivation of the skilled artisan be the same as an applicant motivation", *In re Kemps*, 97 F.3d 1427, 1430, 40 USPQ2d 1309, 1312 (Fed. Cir. 1996) (holding there is sufficient motivation to combine teachings of prior art to achieve claimed invention where one reference specifically refers to the other).

Therefore, it is well settled that for a finding of obviousness under § 103 the prior art need not disclose the same motivation as disclosed by an applicant.

Allowable Subject Matter

8. Claims 5 and 6 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

The following is examiner's statement of reasons for allowance: The present claims are allowable over the closest reference: Catena (U. S. Patent 5,256,450).

Catena discloses a process for impregnating and sealing porous articles which comprises: A) impregnating the article with a water miscible heat resistant, shrinkage resistant, anaerobic polymerizable acrylate composition comprising: 1) from about 75 to 90% by weight of a mixture of acrylate or methacrylate monomers, the mixture containing: a) from about 25 to 50% by weight of the monomers of formula (I) where n is

Art Unit: 1796

from about 7 to 11 and b) from about 50 to 75% by weight of the monomer of formula (I) where n is from about 1 to 4; 2) from about 10 to 25% by weight of an hydroxy-terminated acrylate or methacrylate, and 3) an effective amount of a free radical initiator to initiate cure of the monomers upon exclusion of oxygen; B) washing the surface of the article with water to remove any excess impregnant; and C) permitting the anaerobic sealant to cure (col. 2, line 40 through col. 3, line 14).

The most common initiator systems are those involving peroxy materials which, under the appropriate conditions, decompose to form peroxy free radicals. A class of peroxy initiators which has been found readily adaptable to the anaerobic concept, and particularly efficient when used in combination with the acrylate and methacrylate monomers described above, is the hydroperoxy initiators. Of this class, the organic hydroperoxides are the most preferred. The amount of initiator will vary up to 10 percent by weight of the composition, preferably from 0.5 to 5 percent by weight of the composition (col. 4, lines 41-66).

However, Catena does not disclose or fairly suggest a complex of an alkali metal and a metal other than alkali metals and ethylenediaminetetraacetic acid, or a complex of a metal other than alkali metals and diethylenetriaminepentaacetic acid, particularly wherein the metal other than alkali metals is selected from the group consisting of Cu, Fe, Ni, Zn, Ca, Mg, and Mn, as is recited in claims 4 and 5.

Furthermore it is noted that as shown in the bar graphs on pages 3-5 of the Declaration, the samples having a metal other than alkali metals showed faster curing time across a broad variety of substrates (adherends) than the samples, which does not

Art Unit: 1796

have a metal other than alkali metals. Further to the faster curing rates for zinc chromate as a substrate, on page 6 of the Declaration, the samples having EDTA.2Na with a metal other than alkali metals are observed to have higher adhesive strength than the samples used EDTA.2Na, which does not have a metal other than alkali metals.

9. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to MICHAEL M. BERNSHTEYN whose telephone number is (571)272-2411. The examiner can normally be reached on M-Th 8-6:30.

Art Unit: 1796

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Wu can be reached on 571-272-1114. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Michael M. Bernshteyn/
Examiner, Art Unit 1796

/M. M. B./
Examiner, Art Unit 1796

/David Wu/
Supervisory Patent Examiner, Art Unit 1796